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Rescue workers and volunteers at the site of the collapsed factory building, near Dhaka, the capital of Bangladesh

FACTORY COLLAPSE IN BANGLADESH

On 24th April an eight-storey building in Bangladesh collapsed. It contained five garment, or clothing, factories. Hundreds of people, who were working in the building, died. Large clothing companies in both Europe and North America often use these types of factories in Bangladesh to make the clothes they sell.

The building collapse was not the first serious factory accident in Bangladesh. For example, five months ago over 100 workers died when their garment factory caught fire. In 2005 another factory building fell down killing 64 people.

Some people now say that the owners of companies that get their clothes made in Bangladesh are partly to blame for these accidents. They believe that these international clothing companies should make sure that the garment factories they use in Bangladesh are safe places in which to work.

The clothing industry is important to Bangladesh. There are around 4,000 clothing factories in the country. Bangladesh is the world's second-largest exporter of garments. (The biggest is China.) Around 3.6 million people work in Bangladesh's clothing factories. Most are women.

About 80% of all Bangladesh's exports are garments. Each year the value of all the clothes sold to companies, in other parts of the world, is around £12.5 billion (US\$20 billion).

The latest accident happened in Savar. This is an industrial suburb about 30 kilometres (19 Miles) from Dhaka, Bangladesh's capital city. The building that collapsed was called Rana Plaza. As well as the factories it contained a bank and a shopping centre. Around 5,000 people worked in the building. Yet, when it collapsed not all of them were there.

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The day before the accident workers noticed that cracks had appeared in some of the building's walls. Local officials ordered everyone to leave. The bank and shops, which were on the lower floors, were immediately closed.

However, two engineers are reported to have said that the building was safe. Garment factory owners often have to produce an agreed number of clothes for their customers by a certain date. The managers of the factories in Rana Plaza did not want to lose any time. They told their workers to return to work the next day.



Rescuers carrying one of the survivors

The following morning, soon after nine o'clock, the building suddenly collapsed. At that time about 3,000 people were inside. Rescue workers quickly arrived at the site. They immediately began to try to free those who were trapped in the wreckage. Many others volunteered to help. The huge pile of twisted metal and heavy concrete beams made the rescue work very difficult.

After hearing the news hundreds of people, whose family members worked in the building, crowded around the site. They watched as both survivors and the dead were pulled from the wreckage. At first those in charge of the rescue operation did not want to use large cranes and other heavy lifting machinery. They worried that this type of equipment would cause further collapses and endanger those still trapped.

Over the next six days several groups of people were found alive. Yet trying to free them took a long time. Rescuers had to drill holes in the collapsed floors and cut through concrete beams that were blocking the way. Many of those rescued had survived in very hot temperatures without any food or water. It will be a long time before the exact number of those who died is known. One estimate is around 600.

The day after the accident the factory owners and the engineers, who said the building was safe, were arrested. But the person who owns the building could not be found. Sheikh Hasina, the country's prime minister, ordered the police to search for him. The owner was eventually arrested four days later, close to the country's border with India. Some reports said that he had previously arranged for extra floors to be added to the top of the building. It seems that the owner had not asked local officials for permission to do this. If this is true then he was breaking the law.

The government declared that 25th April would be a national day of mourning. In the days after the accident many garment workers refused to go back to their factories. There were big demonstrations in Dhaka. The protesters were complaining about having to work in unsafe buildings. They demanded that the people responsible for the Rana Plaza accident be severely punished. The police fired tear gas and rubber bullets at some of the demonstrators.

In Bangladesh there are laws about workers' rights and building safety standards. Yet factory managers often ignore them. Many wealthy factory owners in Bangladesh donate money to the country's two main political parties. This means that some leading politicians are reluctant to

make any changes, or to make sure that factory laws are obeyed.

Many large international companies get some of their clothes made in Bangladesh. These include Benetton, from Italy, Loblaw, from Canada, Wal-Mart, from the USA, Primark, from the UK, and the French company Carrefour. After the accident Primark and Benetton admitted that at least one of the factories in Rana Plaza had made some of their clothes.

One problem is that international clothing companies often want their garments to be made quickly and at the cheapest possible price. Factory owners in Bangladesh therefore have to keep the cost of their operations down. They do this by paying low wages and not spending money on safety equipment or improving their factories. Many factory workers in Bangladesh are paid about £24.00 (US\$37.00) a month.

Some people believe those living in wealthier countries should now agree to pay higher prices for clothes that are made in places like Bangladesh. Some are suggesting that large clothing companies, which used factories in Rana Plaza, pay compensation to the families of those who died. On 29th April Primark said it would do this.

Last year a Bangladeshi organisation, which tries to make sure that factory workers are treated fairly, came up with a new idea. It drew up some rules called the Bangladesh Fire and Safety Agreement (BFSA). This organisation wants all clothing companies that use factories in Bangladesh to sign the BFSA. If they do, regular safety inspections have to be made of all the factories that make their clothes. So far only one German and one American company have signed the BFSA. ■

EARTHQUAKE IN CHINA

A powerful earthquake struck a part of Sichuan Province, in south west China on 20th April. The epicentre was not far from the city of Ya'an, which has a population of 1.5 million. The earthquake had a magnitude of 7.0.

Thousands of rescue workers, police officers and soldiers were immediately sent to Ya'an. Many came from Chengdu, the largest city in Sichuan, which is about 130 kilometres (80 miles) away. Hundreds of buildings in Ya'an were badly damaged. Yet the worst affected areas were in nearby mountains where many villages were destroyed.



Landslides blocked some of the mountain roads. Soldiers used bulldozers to clear them. Some villages could only be reached by helicopter. Rescue workers took thousands of tents and blankets with them. Heavy lifting equipment was sent to the larger towns.

Several days later Chinese officials announced that around 200 people were known to have died and about 12,000 injured. Many more lost their homes.

In recent years this part of China has had frequent earthquakes. Since 1990 there have been 12 with a magnitude greater than 5.0. The worst one happened in 2008. It had a magnitude of 8.0 and killed around 90,000 people.

The Earth's crust is made up of huge pieces called tectonic plates, or 'plates'. These plates float on the very hot liquid rock deep below the surface. They move slowly at a speed of about two centimetres (0.8 inches) each year. The places where they meet are known as fault lines, or faults. Plate movements along these faults can cause earthquakes and volcanic eruptions.

The area of China where the earthquake happened is on what's known as the Longmenshan fault. Some call it the Dragon's Gate. Here two tectonic plates – the Indian and the Eurasian plates – are pushing against one another.

After the 2008 earthquake many people criticised the Chinese government. They accused officials of being slow to send enough help to the areas worst affected. The earthquake caused a number of school buildings to collapse. Hundreds of school children died. Many people suspected that these schools had not been built properly. They accused the companies that constructed them of trying to save money by not using the right building materials.

In the recent earthquake no school buildings collapsed. The rescue teams arrived very quickly. Li Keqiang, China's new premier, travelled from Beijing, the country's capital city, to the earthquake area on the same day. He then helped to organise the rescue operation.

In recent years several hydroelectric dams have been built in Sichuan Province. These create huge reservoirs, or man-made lakes. A few people are now wondering if these reservoirs are the reason for more frequent earthquakes in this part of China. They believe that the enormous weight of water might be the cause. However, others say this is unlikely. ■

KING WILLEM-ALEXANDER

On 30th April, a special ceremony was held in the Nieuwe Kerk (New Church) in Amsterdam, the capital of the Netherlands. The Nieuwe Kerk, which is about 600 years old, is traditionally used for royal occasions. The ceremony was an investiture service. During it Willem-Alexander officially became the new King of the Netherlands.

The Netherlands is a constitutional monarchy. So although the Dutch king or queen is head of state he or she has few powers. In constitutional monarchies a country is run by the prime minister and has an elected parliament. The prime minister is usually the leader of the political party that has the most seats in the parliament.

Unlike other constitutional monarchies, such as the UK, it is not unusual for the head of the Dutch royal family to abdicate, or stand

NewsCast

CHICKEN RUN — A woman in the UK has been reunited with her runaway hen. The chicken, called Agatha, had managed to get inside a van that had delivered some items to the woman's house. The van's owner didn't notice the hen in the back and drove off. His next stop was 64 kilometres (40 miles) away. When he opened the van's door the chicken flew out and ran off. The driver told the woman what had happened. She immediately set off to look for Agatha. After searching for many hours she met a farmer. The woman asked if he had seen a stray chicken. He replied that one of his friends was looking after it. The woman said her family were relieved to hear that Agatha was on her way home.

down. This is what Willem-Alexander's mother, Queen Beatrix, did. Last January she announced that she had decided to abdicate. This meant her eldest child, Willem-Alexander, would take over.



Willem-Alexander taking the oath during his investiture ceremony, in Amsterdam

Over the last 100 years, abdication has almost become a tradition in the Netherlands. Queen Beatrix's grandmother, Queen Wilhelmina, abdicated after being on the throne for nearly 58 years. At the time she was suffering from ill health. Her daughter, Queen Juliana, took over. She reigned for 32 years. Then, when she was 71 years old, Queen Juliana chose to abdicate in favour of her daughter, Queen Beatrix.

Queen Beatrix became the country's monarch in 1980. She has been a popular queen. The evening before Willem-Alexander's investiture she made a speech. She thanked the Dutch people for the support they had given her over the past 33 years.

King Willem-Alexander is 46 years old. He and his wife, Queen Máxima, have three daughters. Máxima is from Argentina. They first met in Spain and married in 2001. The new king has served in the Royal Netherlands Navy. He studied history at university and has trained to be an airline pilot.

Members of the royal families of several other European countries, such as the UK, Spain and Denmark, were invited to the ceremony. During

it Willem-Alexander had to take an [oath](#) before the members of the Dutch parliament. He swore to support the constitution, or rules by which the Netherlands is governed, and to defend the independence of the country.

Thousands of people crowded into the large square outside the Nieuwe Kerk. Many wore orange, which is the colour associated with the Netherlands and the Dutch royal family.

Amsterdam is built on a large river and the city has many canals. Later in the day, as part of the celebrations, there was a water [pageant](#). Over 200 boats took part and huge crowds watched from the sides of the river.

Willem-Alexander is the Netherlands' first king since the death of his great-great-grandfather, William the Third, in 1890. ■

MEMORY AND CLENCHED FISTS

A group of scientists in the USA have completed a study about a person's ability to remember things. Their work seems to show that memory can be improved if a person [clenches](#) their fist. What's more this may depend on which fist they clench, the left or right.

In an experiment 50 students were split into five different groups. All were right-handed. First each person in four of the groups had to read 72 words. They then had to recollect, or remember them. Before they did this they were told to clench either their left or right hand. The fifth group also took part in the experiment, but they did not clench their fists at all. This is what's known as a control group.

The first group clenched their right fists for 90 seconds. They then read through the list of words. Before trying to remember what the

words were they clenched their right hand for another 90 seconds.

The second group did the same as the first. But this group clenched their left hand, both before reading and recollecting the words.

The two remaining groups did the same test. Yet they used two different hands. So, one group clenched their right hands before reading the words and then their left before trying to recollect them. The other group did the opposite. They used their left hand first and their right second.

When checking the results the scientists discovered that one group seemed to be better at remembering and recollecting the words. This was the group that used their right hand when memorising the words and the left hand before recollecting them. This group also did better than the control group.



It's known that the left and right side of the brain do different things. However, memory and recollection are believed to use both sides of the brain. The left side of the brain is used for memory and the right for recollection.

Previous scientific work suggests that when a right hand is clenched it activates the left side of the brain. The opposite is true for the left hand. When this hand is clenched it affects the right side of the brain.

The scientists' study therefore seems to show that simple movements of the body may affect how the brain works. One effect could

be an improvement in both memory and recollection.

The scientists now plan to do further studies to try to find out if fist clenching can improve a person's ability to remembering other things. One example could be people's names and faces. ■

CHINA SCHOLARSHIP PROGRAMME

During a visit to Beijing, the capital of China, on 21st April, Stephen Schwarzman announced the set up, or launch, of a new scholarship programme. The programme will pay for selected students from China, and other parts of the world, to study for one year at Tsinghua University. Tsinghua, which is in Beijing, is one of China's top two universities.



Stephen Schwarzman

Mr Schwarzman, who has a large personal fortune, is a successful American businessman. He is the boss and a co-founder of Blackstone. Blackstone is one of the world's biggest private equity companies. These companies raise large amounts of money, which is then used to buy other big businesses. Companies like Blackstone then try to improve the firms they buy to increase their value. If they succeed then the businesses are often sold to others for a much higher price.

Each year 200 students will be selected for the new scholarship programme. They will spend one year at

Tsinghua University studying certain subjects, such as engineering, economics and business. Forty-five per cent of the students will come from the USA, 20% from China, and the remainder from the rest of the world.

These types of 'paid for' study programmes are often called endowed scholarships. All the money the students need to live and study in China will be included in the scholarship.

Mr Schwarzman will give US\$100 million (£65 million) to the programme. Large companies are expected to donate another US\$200 million (£130 million). Mr Schwarzman says several big companies have already agreed to provide much of the money needed. They include BP, one of the world's biggest oil companies, the aircraft maker Boeing, and Caterpillar, a company that makes large earth moving equipment. Mr Schwarzman also expects several big Chinese companies to help.

In recent years China's economy has been growing very quickly. Yet in many other parts of the world, such as the USA and Europe, economic growth has been very slow. Mr Schwarzman says it is important for both China and other countries to work together to avoid possible problems in the future. He believes that the new scholarship programme will help to make this happen. He expects that some of those selected will become the global leaders of the future.

Mr Schwarzman hopes that the programme will become as well-known as Rhodes Scholarships. These are named after Cecil Rhodes. He was a British born South African businessman, who made a fortune from mining diamonds.

Rhodes died in 1902. Just before his death he arranged for some of his

fortune to be used to pay for clever students, from other countries, to study at Oxford University, in the UK. These students are known as Rhodes Scholars. Bill Clinton, a former president of the USA, is a Rhodes Scholar.

Students who are selected and complete the programme at Tsinghua University will be known as Schwarzman Scholars. ■

LOST CITY OF HERACLEION

A team of international researchers, working with a German television company, have created a 3-D (three-dimensional) image of the lost city of Heracleion. The city is believed to have disappeared beneath the Mediterranean Sea around 1,200 years ago.

Heracleion used to be on the Nile delta, in Egypt. This is where the River Nile flowed into the Mediterranean Sea. It is thought that the city was founded sometime during the eighth century BCE.



Image of lost city of Thonis-Heracleion

The Egyptians called the city Thonis, but to the Ancient Greeks it was Heracleion. The Greeks named it after Hercules. In Greek mythology he was the son of Zeus, who was the god of the sky. Legends said that Hercules had travelled to the city. Helen of Troy was also believed to have been a visitor. Homer, the Ancient Greek author of the *Iliad* and the *Odyssey*, also wrote about Heracleion.

Today researchers and archaeologists often call the city Thonis-Heracleion. Franck Goddio, a French underwater archaeologist, first discovered the city's ruins in 2001. Then he was searching the bottom of the sea for a French warship. The ship had been sunk during the Battle of the Nile, in 1798. This battle was between the French and British navies.

Mr Goddio therefore discovered the remains of Thonis-Heracleion by accident. It is roughly 6.5 kilometres (four miles) from where the coast of Egypt is today. Here the sea is around 46 metres (150 feet) deep.

Teams of divers have spent many years investigating the city. Some items have been brought to the surface. These include statues and carved stones. Several have both ancient Egyptian and Greek writing on them. Some of the statues are nine metres (16 feet) tall. As they were buried under a layer of sand and mud these stone items have been very well preserved.

More recently hundreds of ships anchors have been discovered. The remains of over 60 ships have also been found. It seems that many of these were sunk deliberately. Yet those in charge of the research are not sure why this was done.

A survey of the ruins has been completed. From this the researchers have been able to create an image of what the city might have looked like. There were two areas of buildings. In the centre was a large temple. The city had many waterways. Some were part of the river, but others were man-made.

Divers have found many gold coins and weights made from bronze. Experts say that items like these suggest Thonis-Heracleion was a trading centre. They think

that larger ships arriving at the city would unload what they were carrying. This cargo would then be loaded onto smaller river boats. It could then be taken up the River Nile to other Egyptian cities.



Divers inspecting 'lost city' statue (Christoph Gerigk/Franck Goddio/Hilti Foundation)

Mr Goddio says that work on the city has only just begun. He jokes that it may take 200 years before it is completed.

Even though the researchers are discovering more about Thonis-Heracleion one mystery still remains. What caused it to disappear? There are several ideas. The city was built on sand and not rock. A [combination](#) of earthquakes and flooding may therefore have caused this part of the Egyptian coastline to suddenly sink below the sea. ■

ITALY'S NEW PRIME MINISTER

On 27th April Giorgio Napolitano, the president of Italy, met with Enrico Letta. The meeting took place at the presidential palace, in Rome, Italy's capital city. Afterwards it was announced that Mr Letta would be the country's new prime minister.

An election was held in Italy at the end of February. Yet, for the last two months, the political parties with the most seats have argued about who should be prime minister. The announcement on 27th April

meant that the political uncertainty had finally ended.

The Italian parliament has two chambers - the Chamber of Deputies, or the lower house, and the Senate, the upper house. In Italy there are many different political parties. Most agree to work with others to form larger groups, or coalitions. To govern the country effectively one of these groups needs to get over half of the seats in both the lower and upper houses.

In November 2011 the then prime minister of Italy, Silvio Berlusconi, resigned. Mr Berlusconi is the leader of the People of Freedom Party (PDL). He agreed to step down because of the country's financial difficulties.

It was proposed that a new technocrat government would take over. This meant it would be made up of important people who had not been elected. Mario Monti was given the job of prime minister. Mr Monti's government would be in charge for about 12 months after which new elections would be held.



Enrico Letta, Italy's new prime minister

Most people expected the Democratic Party (PD) to get the most seats in the election. Its leader, Pier Luigi Bersani, would then become the prime minister.

To the surprise of many, a new political party, called the Five Star Movement, got 25% of the votes. Beppe Grillo, who is a well-known comedian, leads this party.

Mr Grillo says he decided to set up his new party because he was

angry about politics in Italy and Italian politicians. He claims that most are dishonest and that they are paid too much money. Mr Grillo insists that politicians should serve the people who elect them. He also accuses them of causing the country's financial problems.

The election result meant that the seats in the Chamber of Deputies and the Senate were almost evenly divided between the PDL, the PD and the Five Star Movement. Mr Grillo said his party would refuse to work with either of the other two.

Mr Bersani and Mr Berlusconi, the leaders of the PD and PLD, have different political ideas. They also dislike each other. Around this time Mr Napolitano, the country's president, was due to stand down. This was because he had finished his seven-year term. In Italy the president is the head of state, but it is the prime minister who runs the country.

Members of the lower and upper houses elect the president. But the parties could not agree on a candidate. The person that Mr Bersani suggested did not get enough votes. Because of this Mr Bersani decided to resign from the leadership of his party. Mr Letta, who was his deputy, took over. To try to help solve the problem Mr Napolitano, who is 87 years old, agreed to be re-elected for another seven years.

After talks it was agreed that Mr Letta's PD party and the PLD would join to form a coalition and a new government. When two main rival parties do this it is often called a 'grand coalition'. However, Mr Berlusconi will not be part of the new government. Angelino Alfano, who is a senior member of Mr Berlusconi's party, will be deputy prime minister.

As the new prime minister, Mr Letta, who is aged 46, made a

speech on 29th April. He said he would work hard to solve Italy's economic problems. However, some think it will not be long before the PD and PLD start to disagree with each other. If this happens another election will probably have to be held. ■

JAPAN AND RUSSIA

On 29th April Japan's prime minister, Shinzo Abe, arrived in Moscow. He had travelled to Russia's capital city to hold talks with the Russian president, Vladimir Putin. In recent years Russia and Japan have not had a good relationship. The last visit by a Japanese leader to Russia was ten years ago.



President Putin and Prime Minister Abe

Unlike other countries, such as the USA, Russia and Japan never signed a peace treaty after the end of the Second World War (1939 – 1945). One of the reasons for this is a disagreement about the ownership of several small islands to the north of Japan. These islands are in a line between the northern Japanese island of Hokkaido and the Kamchatka Peninsula, which is part of Russia.

During the Second World War troops from the USA, the UK, India, Australia, and New Zealand fought Japan in the Pacific region. At the same time the UK, the USA, Canada and Russia were fighting Nazi Germany in Europe.

Even though the far eastern part of the country is close to Japan Russia did not take part in fighting the Japanese. However, a few days after Japan surrendered and the war ended, Russian soldiers took control of four Japanese islands close to Hokkaido. The Japanese people living on the islands were forced to leave.



In Russia the islands are known as Iturup, Kunashir, Shikotan, and the Habomai Rocks. In Japan they are called Etorofu, Kunashiri, Shikotan, and the Habomai Islands. The Russians call these four islands the Southern Kurils while in Japan they are known as the Northern Territories.

The peace treaty signed by the USA, the UK, and Japan several years after the war ended did not state which country these islands belonged to. Since the end of the war Japan has frequently asked Russia to discuss ownership of the islands, but it has refused.

The islands have valuable mineral deposits, such as gold and silver. Whoever owns them also controls a large area of the surrounding seas. The waters around the Kuril Islands contain many fish. Some experts also believe there are oil and gas fields under the seabed close by. Today only a few thousand people live on the islands. Most make their living from fishing.

Three years ago Dmitry Medvedev, who was the Russian president at that time, visited the islands. He was the first Russian leader ever to

have travelled there. Mr Medvedev, who is now the prime minister of Russia, went back to Kunashir last year. Both of these visits angered the Japanese government.

In the past Japan made, or generated, much of its electricity from nuclear power. However, two years ago a powerful earthquake damaged one of its nuclear power stations. For safety reasons nearly all of Japan's other nuclear plants have been shut down. This means that Japan now needs to buy more oil and gas from other countries to make electricity.

Russia has large supplies of oil and gas. Much of which comes from the part of the country that is closest to Japan. Japan already imports some of Russia's liquefied natural gas (LNG). It's possible that, in future, a gas pipeline could be built from the Russian city of Vladivostok to Japan. However, Japan is unlikely to agree to this while there are still arguments about the islands.

After their meeting Mr Putin said he had agreed for official talks to be held about the islands. These, he declared, would take place in the near future. ■

WORLD PENGUIN DAY

Nowadays 25th April is designated as World Penguin Day. There are many different types, or species, of penguins. Apart from those that are kept in zoos, all penguins live in the southern hemisphere.

Nobody knows where the word 'penguin' comes from. It may derive from two Welsh words, *pen gwyn*, which mean 'white head'. Another possibility is *pinguis*, which is the Latin word for 'fat'.

The first bird to be called a penguin was the Great Auk, which is

extinct. These birds, which were about 80 centimetres (32 inches) tall, lived along the rocky coastlines around the North Atlantic Ocean.



Emperor penguins

Great Auks were flightless, or unable to fly. Therefore they were easy to catch. The birds were hunted for food and their feathers, which were used to make pillows. It's thought that the last Great Auks were killed in the 1830s. When European sailors from the north travelled to the southern hemisphere and saw, what we now call, penguins for the first time they thought they were similar to Great Auks. This explains how the birds got their name. However, scientists now know that Great Auks and penguins are not related.

Many people imagine the ice and freezing temperatures of Antarctica when they think of penguins. But of the many different types of penguin only two, Adélie and Emperor, breed on the continent of Antarctica. Chinstrap and Gentoo penguins live on islands around the Antarctic Peninsula. King, Macaroni, Royal and

Rockhopper penguins are found on other islands in the Southern Ocean such as South Georgia and the Falkland Islands.

Other types of penguins live farther north in places like New Zealand, Australia, South Africa, South America and even the Galapagos Islands, off the coast of Ecuador. Most penguins eat squid, fish and krill, which are small shrimp-like creatures. Penguins are birds. They are unable to fly but are very good swimmers. Penguins spend about half their lives on land and the other half in the water.

Fossilised bones of large prehistoric penguins have been found. Some of these ancient penguins were taller than humans. In today's world, Emperor penguins are the largest. They can grow to a height of 122 centimetres (48 inches). The smallest species is the Little Blue penguin. This type lives around New Zealand and along the southern coast of Australia. Adult Little Blues, which are also called Fairy penguins, are about 32 centimetres (13 inches) tall.

Emperor penguins are found only in parts of Antarctica. Here the temperatures can be as cold as -50°C (-58°F). Large groups of penguins are called colonies. At breeding time male Emperor penguins incubate, or look after, the eggs through the winter months. During this time the females feed in the sea. Large colonies of male penguins gather in one place many kilometres from the coast. When it gets very cold they huddle tightly together to keep warm.

After the eggs hatch, the females return with food for the chicks. By this time the males have not eaten for over 100 days. Once the females return, the males then walk back to the sea to feed.

There is disagreement as to how many different types of penguin there are. Some ornithologists – or scientists who study birds – say there are 20. They believe that certain types are separate species because of their different colours. Yet others claim that there are 17 types. These people think that some of the different coloured penguins really belong to the same species. ■

SHIP TUNNEL

The government of Norway has announced that it plans to build the world's first tunnel for large ships. Called the Stad maritime tunnel it will be about 1.8 kilometres (1.1 miles) long. Building work is expected to start in 2018 and take four years to complete.



Artist's impression of Stad maritime tunnel

Norway is a mountainous country. It also has a long coastline. Travelling by boat and ship is therefore an important form of transport for Norwegians. Together with gas and oil, shipping is one of Norway's biggest industries.

However, the seas around Norway's coastline can be stormy. One of the worst areas for powerful winds and rough seas is the Stad Peninsula. This rocky headland is often used to mark the divide between the Norwegian Sea to the north and the North Sea to the south.

Islands protect nearly all the shipping routes along Norway's coastline. Yet the only place that ships have to go out into the open sea is when they sail around the Stad Peninsula. If there is bad weather in this part of Norway sailing past this headland can be dangerous. Ships often have to wait until the weather improves. This can cause long delays. In recent years there have been several accidents near the Stad Peninsula. Rough seas have caused most of them.

The tunnel will connect the areas of sea on either side of the headland. It will be close to where the peninsula joins the mainland. When completed it will mean that certain sized ships will no longer have to sail around the Stad Peninsula.

The idea for a ship tunnel in this part of Norway was thought of many years ago. Experts say it should not be difficult to build. As it is so mountainous Norway has many long road tunnels. Engineers in the country are therefore skilled at this type of construction work.

Workers will drill through the rock, on either side of the headland, at sea level. When they start, special dams will be built at both ends of the tunnel. After it is completed these dams will be removed so the seawater can flood in. The tunnel will be 45 metres (148 feet) high and 36 metres (118 feet) wide. The seawater in the tunnel will be 12 metres (40 feet) deep.

The tunnel will be large enough for cargo ships to sail through it. Norway's Coastal Express will also be able to use the tunnel. These are ships that carry both passengers and freight. The Coastal Express has daily sailings. Some of these travel almost the entire length of Norway's long coastline.

The Stad maritime tunnel is expected to cost about 1.7 billion kroner (£190 million). It is unlikely to make sailing times shorter. This is because travelling through it will probably take as long as sailing around the peninsular. ■

LADIES IN WHITE

On 23rd April a special ceremony was held at the European Parliament, in Brussels, the capital of Belgium. Several members of a group called the 'Ladies in White' were officially awarded the Sakharov Prize. Even though the prize was awarded to the group in 2005 they have only just been able to collect it.

The Sakharov Prize is named after Andrei Sakharov (1921 – 1989). Sakharov was a Russian nuclear scientist. In the 1950s he helped to design some of Russia's most powerful nuclear weapons. Then, Russia was a communist country and the Russian-led Soviet Union was an enemy of the USA and many European nations.



Ladies in White during their weekly demonstration outside a church in Havana, the capital city of Cuba

Later Sakharov became worried about his work and, if there was a nuclear war, the effect it might have on the world. He then tried to make people aware of the dangers of Russia and the USA making more and more nuclear weapons. He also started a group that helped people

in Russia who had been put on trial for their political beliefs. This got him into trouble with the Soviet authorities. He was sent to a city called Nizhny Novgorod. There he was not allowed to leave the small apartment that he lived in.

During this time Sakharov went on several hunger strikes. In 1975 he was awarded the Noble Peace Prize. But he was not allowed to leave the Soviet Union to collect it.

When the Soviet Union broke up in 1989 Sakharov was elected as a member of the country's new parliament. Yet soon afterwards, at the age of 68, he died of a heart attack.

The European Parliament set up the Sakharov Prize in 1988. Each year it is given to people or groups who have worked for human rights and 'freedom of thought'. Freedom of thought means being able to have your own ideas, or views.

In 2003, 75 men were arrested for complaining about the lack of political freedom in Cuba. Cuba is a communist country and no opposition groups are allowed. All the men were sent to prison.

The following year the imprisoned men's wives and female relatives decided to hold a peaceful protest. After going to church on a Sunday they silently walked, in a line, through the streets of Havana, the capital of Cuba. All were dressed in white. They then began to do the same thing after church every Sunday. Because of the clothes they wore people began to call them the Ladies in White.

The following year the European Parliament decided to award the Sakharov Prize to the Ladies in White. Yet, at that time it was not possible for most people living in Cuba to travel to other countries. So

the Ladies in White were not able to collect the prize.

The group continued with its weekly protest. All the men, who were imprisoned in 2004, were eventually released. However, the Ladies in White still walk through the streets of Havana every Sunday. Sometimes the authorities try to stop them by breaking up the group.

Last January the authorities in Cuba changed the rules. Now it is easier for people to go to other countries. This meant that several of the Ladies in White were finally allowed to travel to Brussels to receive the Sakharov Prize.

WARSAW'S NEW MUSEUM

A new museum opened on 19th April in Warsaw, the capital of Poland. It is called the 'Museum of History of Polish Jews'. The museum tells the story of Jewish people in the country over the last 1,000 years.



Monument to the Ghetto Heroes and the new Museum of History of Polish Jews, in Warsaw

The museum has been built in a part of the city that during the Second World War (1939 – 1945) became known as the Warsaw [Ghetto](#). The museum's opening day, 19th April, was specially chosen. This was because it marked the 70th anniversary of the Warsaw Ghetto Uprising in 1943. This was the largest revolt by Jewish people against the Germans during the war.

When the war began the German army invaded and then occupied Poland. At that time around 3.5 million Jews lived in Poland. Over the next four years tens of thousands of Polish Jews were sent by train to large camps, such as Auschwitz, which had been set up in the country. There, poisonous gas was used to kill most of them. Their bodies were then burnt.

At first German SS soldiers forced Jewish people to move to certain parts of larger Polish cities. These areas became known as ghettos. In Warsaw there were about 350,000 people in the city's ghetto. It was an area of roughly 3.4 square kilometres (1.3 square miles) near the centre of the city. A wall was built around the ghetto and most people were not allowed to go in or out.

Because of the overcrowding many people in the ghetto became sick. Thousands died from not having enough to eat. In 1942 the Germans began to move the Jews out of the ghetto. Most thought they were being sent to labour, or work, camps. But they were taken to a camp called Treblinka, where nearly all were murdered. It's thought that as many 300,000 people from the Warsaw Ghetto died at Treblinka.

When the remaining people in the ghetto discovered what had happened to those that had been taken away they decided to revolt, or fight back. Fighting groups were formed, but they only had a few weapons. The Germans sent well-armed troops to set fire to the buildings and destroy the ghetto. The fighting lasted for about four weeks. Eventually nearly all those resisting the Germans were killed or captured.

Around 7,000 Jews were killed in the uprising. Most of these people died in burning buildings. Those

that were captured were sent to the camps. When the fighting ended the Germans knocked down all the ruined buildings.

Soon after Germany's defeat, in 1945, a decision was made to build a memorial to those who had died during the Warsaw Ghetto Uprising. Called the Monument to the Ghetto Heroes, it was completed in 1948. The new museum has been built close to this memorial.

The museum shows the history of Jewish people in Poland, which goes back to the 10th century. It includes displays about their culture and religion. One large exhibit is a reconstruction of an early Jewish synagogue made of wood. Both Bronisław Komorowski and Donald Tusk, Poland's president and prime minister attended the opening ceremony. ■

SYRIA AND CHEMICAL WEAPONS

At the end of last year the leaders of the USA and the UK warned the government of Syria about the use of chemical weapons. Recently several countries, including the UK, Israel and France, have claimed that sarin, a type of deadly gas, has probably been used in Syria.

In the past Barak Obama, the president of the USA, has declared that any use of chemical weapons by the Syrian army would be a 'red line'. A red line is a point beyond which a person or group will no longer talk or negotiate. Most people believe that Mr Obama meant that he would be prepared to order some type of American military intervention in Syria, if chemical weapons were used.

Although it has never admitted it, Syria is known to have stores of chemical weapons. These are

believed to be different types of highly poisonous, or toxic, gases. These types of weapons are very dangerous and can quickly kill many thousands of people. They can be dropped from planes or fitted to both short- and long-range missiles. Chemical weapons are often described as Weapons of Mass Destruction (WMD). Under international law, it is illegal to use them.



Fighting in Syria has been going on for two years. It began after the government ordered the army to use weapons to stop street protests. The demonstrators were complaining about the country's president, Bashar al-Assad, his government and the police force. The president and his family have controlled Syria for over 40 years.

It's thought that the violence has been the cause of at least 70,000 deaths. Over one million Syrians have crossed the borders into Turkey, Jordan and Lebanon to get away from the fighting. However, many people in certain parts of Syria still support Mr al-Assad. In recent months there has been fierce fighting near Damascus, the capital city.

Many countries have said that they support the rebels, or Syrian opposition groups. These countries include the USA, European Union (EU) members and many Arab nations.

However, rebel commanders say they will not be able to defeat

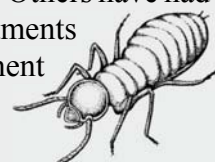
the Syrian army and air force, unless they are given more powerful weapons. So far countries like the USA have been reluctant to do this. They are concerned about militant Islamic groups that are also fighting against the Syrian army. They do not want these groups to get hold of more powerful weapons. They also worry about the possibility of a militant Islamic group capturing one of Syria's chemical weapon stores.

Last month, after a Syrian army attack on rebel held areas near the city of Aleppo, several people were taken to a local hospital. Some said they were suffering from the effects of a type of poisonous gas. Samples of their hair were smuggled out of the country. Tests done in the UK and the USA show that the gas was probably sarin.

However, not many people were affected. Some think it's possible

NewsCAST

CASH CUISINE — Some bank officials in India are in trouble. A locked steel box, or chest, was in one of their bank's rooms. Inside the box was a large amount of money. Yet when the officials opened the chest they discovered that an army, or thousands, of termites had managed to get inside it. The box was known to contain ten million rupees (£119,000) in notes. But the insects had eaten them all. The police were called. They are now carrying out an investigation to find out how the termites got inside the box. Termites can be a big problem in India. This is not the only bank that has had termite problems. Others have had important documents eaten or equipment damaged by hungry insects.



that an artillery shell or missile filled with the gas was fired by mistake. Syrian government officials insist that no chemical weapons have been used. They said the rebels might have organised a small gas attack. The rebels, the officials explained, could then blame it on the Syrian army. If other nations such as the USA believed this, then these countries might be more likely to help them.

The USA has asked the Syrian government to allow a team of United Nations (UN) inspectors into the country. They would investigate what had happened. The inspectors should then be able to confirm if a chemical weapon was used. So far the Syrian government has not agreed to the USA's request. ■

MACHIAVELLI ANNIVERSARY

This year is the 500th anniversary of Niccolò Machiavelli's famous written work called *Il Principe* (The Prince). Many people describe the work as 'a study of leadership'. Some believe that *The Prince*, which is like a long essay, was the first work of modern [philosophy](#), especially political philosophy.

To commemorate *The Prince*'s 500th anniversary a special exhibition has just opened at a museum, in Rome, the capital of Italy. Called 'The Prince and his Times: 1513 to 2013', it includes hand written manuscripts and works of art that are connected with Machiavelli.

Machiavelli (1469 – 1527) was a historian and diplomat, or government officer. Even though he also wrote

songs, poetry and comedies, Machiavelli is best known for being the author of *The Prince*. He lived in the city of Florence, in modern day Italy. Then Florence was a separate city-state.

Machiavelli lived during what is known as the Renaissance. This was a period in European history between the 14th and 17th centuries. At this time there was a great [revival](#) of art, literature, and learning. The name Renaissance comes from a French word that means 'rebirth'.

Some copies of *The Prince* were distributed in 1513. Yet the text was not printed in book form until 1532, five years after Machiavelli had died. The book is about government and politics.

During his lifetime Machiavelli saw many changes of government in Florence. He thought about the difference between a good and bad ruler. His book suggests what a person needed to do if they wanted to become both successful and a powerful leader.

The book worried some people because Machiavelli said that politics and ethics were different. Ethics can be described as behaving in the right or correct way. Machiavelli said that a person might have to do wrong or unethical things to get power. However, when the person had the power they could then do good things. The book made those that read it think of politics differently.

For example, it separated politics from religion and people behaving in a moral way.

Some people thought Machiavelli wrote *The Prince* as a joke. They said it was making fun of rulers who did not care what was right or wrong and wanted to be powerful. Yet most

think Machiavelli believed what he wrote. They say *The Prince* was written as advice to all rulers who wanted to be successful.



Niccolò Machiavelli

Since it was written many people in powerful jobs, or positions, have read *The Prince*. For example, Henry the Eighth (1491 – 1547) was known to have a copy. When Napoleon Bonaparte (1769 – 1821) was captured, after his defeat at the Battle of Waterloo, in 1815, a copy of *The Prince* was found in his carriage.

Nowadays, in English, people often use the word 'Machiavellian'. A Machiavellian person is someone who uses clever tricks and dishonest ways of getting what they want. The word can be used to describe people who want political power.

In English 'Old Nick' is sometimes used as a nickname for the Devil. Some believe that this expression comes from Niccolò, or Machiavelli's first name. ■



The Prince, title page

FLORIDA'S INVASIVE SNAILS

Officials in the southern part of the state of Florida, in the USA, are worried about giant African land snails. These types of snails can

grow to a length of 20 centimetres (7.9 inches). Some people describe the snails as one of the world's most destructive invasive species.

When animals or plants are introduced to a place, but are not native to it, and their numbers keep increasing, they are often called an invasive species. This is what has happened in Florida with the giant snails. The snails originally come from Kenya and Tanzania in east Africa. It is not known how they arrived in Florida. Someone may have brought them to the USA as pets. Another possibility is that they arrived in packing cases or in a person's luggage.

The giant African snail is one of the world's largest air-breathing land snails, or gastropods. (Other types of snails live underwater.) A person living near the city of Miami reported the first one around a year and a half ago. Now about 1,000

of the huge gastropods are being caught in this part of Florida every week. Since the first one was seen over 100,000 have been picked up.

One of the biggest problems is what the snails feed on. They seem to be able to eat almost any green plant. So far they have been known to eat at least 500 different plant species.



Giant African land snail

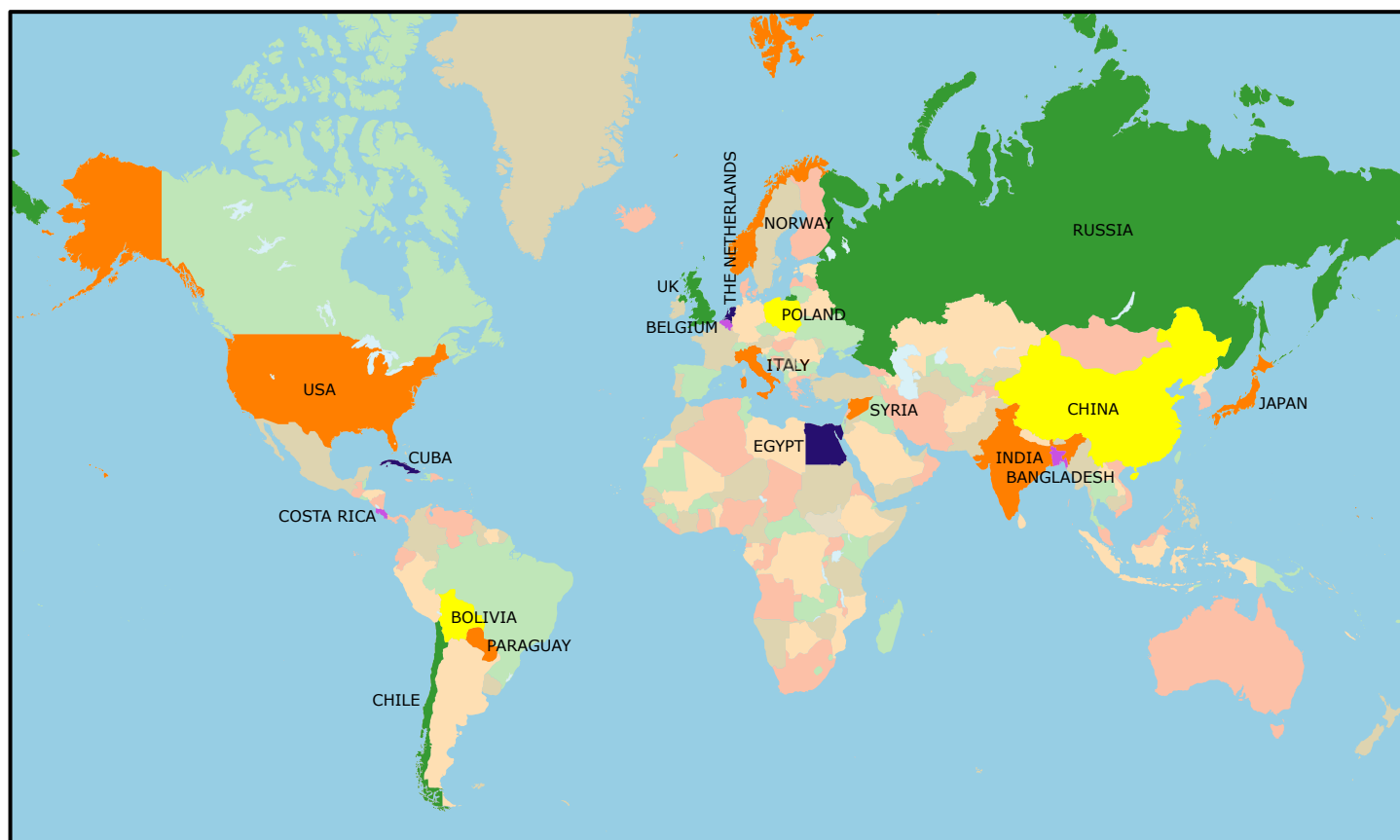
Another problem is that they will get into and damage people's homes. This is because the snails do not just eat green plants. They will also chew through stucco and plaster. They do

this because these building materials contain calcium, which the snails need to grow their shells.

One snail can produce as many as 1,200 eggs in 12 months. These giant land snails are now found in parts of several countries outside Africa. They include China and Taiwan. One country where there is a serious problem is Barbados in the Caribbean. There, on some roads, so many are run over that the broken shells are known to burst, or puncture, car tyres. What's more many pavements and walls become covered with their excrement and slime.

The snails can also have a parasite, called a lugworm, living inside them. This parasite can cause certain diseases in humans.

At a recent meeting officials in Florida said a stronger type of bait to catch the snails could now be used. Announcements are being made in



cinemas asking people to look out for the giant gastropods. Posters warning people about the snails are also being put up.

Florida has a hot tropical climate. The giant African land snails are not the only invasive species in the state. Another is the Burmese python. Many of these huge snakes now live in a large area of wetland in Florida, called the Everglades.

Over the last few years the numbers of native mammals, such as raccoons, opossums, bobcats, foxes, and cottontail rabbits, in parts of the Everglades has been decreasing. This is because they are being eaten by an increasing number of pythons. At the beginning of this year, state officials asked hunters to come to Florida for one month to take part in a special python hunt. Sixty-eight of the giant snakes were shot and killed. ■

KALQ KEYBOARD DESIGN

An international team of researchers have come up with a new type of keyboard. It is very different from the normal keyboards of computers and other electronic devices. Their new touchscreen keyboard has been designed for 'thumb' and not finger typing.

Since they were first invented computers have changed. For example, they have become much smaller, faster and more powerful. Yet, apart from extra keys being added, such as the 'escape' and 'function' keys, keyboard layouts have remained more or less the same.

The standard keyboard layout is called the QWERTY or universal keyboard. The name QWERTY comes from the first six keys in the top row of letters, when reading from left to right. This keyboard layout

was invented for some of the earliest typewriters. It was first used in 1872 and then **patented** six years later. People have therefore been using QWERTY for just over 140 years.

The QWERTY keyboard was designed so that a person using two hands could type quickly. Early typewriters had letters on metal arms, or typebars. If someone was typing quickly and pressed two letters next to each other the typebars could jam. The QWERTY design was set out to try to stop this from happening. Letters that often followed one another, in the English language, were spaced far apart.



KALQ keyboard

The new touchscreen keyboard is arranged so that people use their two thumbs to type. It has been designed to work on tablets and mobile phones with larger screens.

The researchers spent much time trying to work out the best layout for making 'thumb' typing both easy and quick. The layout they decided on is split either side of the screen with a big gap in between. What's more the keyboard is unequal. There are more letters on the left hand side than the right.

The letter order was chosen so that the chances of typing long sentences with just one thumb were kept to a minimum. Most of the consonants are on the left hand side. All the vowels, A, E, I, O, and U are on the right. The letter Y, which can be used as a vowel, is on the left. Both sides of the

keyboard have a space, or blank, key. Either thumb can easily reach these.

The researchers claim that once people get used to the layout they can type very quickly. They estimate that about eight hours of practice are needed before a person can type as fast as they can on a QWERTY keyboard.

Some split screen QWERTY keyboards are used for thumb typing. However, the researchers claim that typing speeds are at least 34% faster when people use their layout for thumb typing.

Like QWERTY the researchers have named their keyboard layout after a line of letters. They call it KALQ. These four letters are the bottom line on the right hand side of the new keyboard. ■

BOLIVIA AND ACCESS TO THE SEA

For many years Bolivia and Chile have argued about a part of Chile's Pacific Ocean coastline. Bolivia's leaders have claimed that their country should include some of the Pacific coast. However Chile has always said that these demands are unlawful. On 24th April, Evo Morales, the president of Bolivia, announced that he had formerly asked the International Court of Justice (ICJ) to decide on which country is right.

Bolivia is one of only two countries in South America that are landlocked, or do not have a coastline. (The other is Paraguay.) However, Bolivia has not always been without a coast. Just over 100 years ago it stretched all the way to the Pacific Ocean.

In 1879 the 'War of the Pacific' broke out between Chile and Bolivia and Peru. It lasted for five years. Chile won. A treaty between the three countries was signed in 1904. It was called the Treaty of Peace and Friend-



Bolivia before the War of the Pacific

Bolivia after the War of the Pacific

ship. As part of this treaty Chile took over, or annexed, areas that previously belonged to Bolivia and Peru. Bolivia lost its 400-kilometre (248 mile) coastline, and therefore no longer had access to the Pacific Ocean.

Many people in Bolivia think there is a big disadvantage in not having a coastline. Anything transported by ship, to other parts of the world, has to travel to ports in different countries. Also, the part of Bolivia annexed by Chile is now known to contain valuable minerals.

This loss of the land along the coast is something that nearly all Bolivians still feel strongly about. Children are taught that their country has a right to have its own access to the sea. Every year, at the end of March, people living in Bolivia celebrate the *Día del Mar*, or Day of the Sea. This is to remind them that their country's borders used to reach all the way to the Pacific Ocean.

Even though it has no access to the sea Bolivia still has its own navy. The country has several large rivers, which are tributaries of the River Amazon. Lake Titicaca, one of the largest lakes in South America, is on the border between Bolivia and Peru. This deep lake is high up

in the Andes Mountains. Bolivia's navy operates boats on the country's larger rivers and Lake Titicaca.

The ICJ is in The Hague, a city in the Netherlands. It is sometimes called the World Court. The United Nations (UN) set up the ICJ in 1946. Its job is to settle disputes, or arguments, between UN member countries. The court has 15 judges. UN members elect each of the judges for a nine-year period. No two judges can be from the same country.

Government officials from Chile said they disagreed with what Bolivia had done. They insist that the treaty both countries signed in 1904 is a legal agreement. The court will now examine the arguments of both sides. It could be many months, or even years before the judges make their final decision. ■

PARAGUAY'S NEW PRESIDENT

A presidential election was held in Paraguay on 21st April. Horacio Cartes won. Mr Cartes is a member of the Colorado Party.

In Paraguay presidential elections are held every five years. The last one was in 2008. Then Fernando Lugo

won. Before this election Mr Lugo formed a new political group, or coalition, called the Patriotic Alliance for Change. It was made up of eight different smaller political parties.

The Colorado party had governed the country for a period of over 60 years until Mr. Lugo became president. Mr Cartes's victory therefore means that the Colorado Party has now been returned to power after a five-year break.

Paraguay is one of South America's poorest countries. Mr Lugo, who was a former Roman Catholic bishop, promised to help the less wealthy people. However, ten months ago members of Paraguay's parliament voted in favour of impeaching Mr Lugo, or forcing him to step down. The elected members of Paraguay's parliament (called the Senate) may vote to impeach the president if they think he or she is no longer fit to lead the country.



Paraguay's president-elect, Horacio Cartes

Many of the people who voted for him claimed that Mr Lugo had not kept his promises. In one incident 11 farmers and six police officers were killed in an argument about who owned an area of land. Several farmers were arrested and charged with murder. Afterwards, many of Mr Lugo's supporters felt he wasn't doing enough to solve these types of land ownership problems.

Mr Lugo also became unpopular with many of his coalition

NewsCAST

EGYPTIAN PIZZA — A business group in Italy says there is a shortage of about 6,000 pizzaioili in the country. These are people who make pizzas in the traditional way. It's estimated that about three million pizzas are eaten in Italy every year. Currently many people in the country do not have jobs. Yet the business group says that Italians, especially younger people, no longer seem to want to do this type of work. It can be hot, long hours and not very good pay. Instead many of Italy's migrant workers are now busy training to be pizzaioili. Most are from Egypt. It's therefore possible that in future Italians will be eating traditional Egyptian pizzas.

partners. They complained that he did not consult them before making important decisions.

After the impeachment vote Federico Franco was appointed as the new president. He is a member of the same coalition group as Mr Lugo and was elected as the vice president in the 2008 election. It was agreed that Mr Franco would be the president for the rest of Mr Lugo's five-year term.

Mr Lugo was angry about the impeachment. The leaders of several other South American countries, such as Argentina, Chile, Brazil, Colombia and Venezuela were also unhappy with what happened in Paraguay. They said that forcing Mr Lugo to stand down was both illegal and undemocratic. They decided to suspend Paraguay's membership of two regional groups including UNASUR (Union of South American Nations). Nearly all South American countries are members of

UNASUR, which is similar to the European Union (EU).

Eleven candidates took part in the election. Mr Cartes got 45.8% of the votes. This was nine percent more than the person who came second.

Mr Cartes is one of the richest people in Paraguay. He is the owner of more than 20 companies. These include a bank, a fruit juice bottling company and several large farm businesses. After being declared the winner Mr Cartes said that he would hand over control of all his companies to other people.

Before the election Mr Cartes promised to improve education and healthcare in the country if he won. Soon after the result was announced the leaders of several other South American countries telephoned to congratulate him. Mr Cartes said that he hopes that Paraguay would soon be able to rejoin UNASUR. He will officially become the new president on 15th August. Until that date he will be what's known as the country's president-elect. ■

TINY NEW FAIRYFLY

Two entomologists – scientists that study insects – have found a new species of very small, or microscopic, insect. They have given it the name *Tinkerbella nana*.

The insect, which is a type of very small wasp, was discovered in the forests of Costa Rica. It is only 250 micrometres long. One micrometre is one-thousandth of a millimetre (or 0.001 millimetres). So *T. nana* is one quarter of a millimetre long. As a comparison the width of a human hair is roughly 100 micrometres.

There are over 1,400 known species of fairyfly. These tiny insects are found in most places in

the world. Yet, as they are so small, most people do not notice them.

When seen under a microscope it is possible to see *T. nana*'s wings. They have long hair-like bristles, called setae, attached to them. These are thought to help the insects to fly.

Even though it is very tiny *T. nana* is not the smallest flying insect ever found. The smallest is another species of fairyfly, called *Kikiki huna*. It is found only on the islands of Hawaii, in the Pacific Ocean. *Kikiki huna* is just 150 micrometres long. The smallest insect ever discovered is also a type of fairyfly. Its name is *Dicopomorpha echmepterygis*. The male of this species, which also comes from Costa Rica, measures 139 micrometres. This type of fairyfly is blind and does not have any wings.



Tinkerbella nana (John T Huber)

As it has only just been discovered little is known about *T. nana*'s life-cycle or behaviour. However, most fairyflies are parasitoids. This means they are similar to parasites. A parasite is a creature or plant that survives by living off another animal or plant. Normally a parasite will not kill its host, or the creature or plant it is living off. Parasitoids, like parasites, also survive by living off others, yet they eventually kill their hosts.

A female fairyfly will lay its eggs inside the eggs of other insects. These insect eggs are usually hidden just underground or in plants. The fairyfly's larvae come out of their

eggs within a few days of them being laid. As the larvae develop they feed on and kill the embryos inside their hosts' eggs.

Once they emerge from their host's eggs fairyflies immediately mate. They only live for a few days. So females have to quickly find some insect eggs in which to lay their own.

The entomologists named the tiny new flying insect after a popular children's character. Tinker Bell is the fairy in *Peter Pan*, a famous children's book. J M Barrie wrote the book in 1911. Nowadays most people know Tinker Bell from films that are based on the *Peter Pan* story. ■

SPACE JUNK WARNING

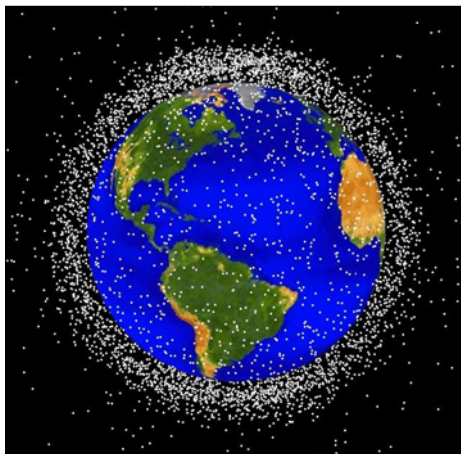
A group of scientists in the USA is worried about what is known as 'space junk', or space debris. Recently the group warned NASA (National Aeronautics and Space Administration) that space was becoming a dangerous place. This, the scientist said, was because of the amount of debris that is now going around, or orbiting, the Earth.

In recent years two incidents have greatly increased the amount of space debris. One took place in 2007. Then China tested a long-range missile by firing it at one of its old satellites. Other countries were angry. This was because the explosion created thousands of extra pieces of space junk.

The other happened in 2009. Two satellites, one from the USA and the other from Russia, collided. Both satellites broke up into many smaller pieces.

It is estimated that 30,000 pieces of space junk, larger than ten centimetres (four inches) in size, are

now orbiting the Earth at different heights. These can be tracked. Yet there are also millions of much smaller bits of debris, such as tiny flakes of paint. The larger objects include pieces of old rockets, bits of satellites and even some tools lost by astronauts. Of all the objects orbiting the Earth, only about 900 are working satellites.



Computer-generated image of space junk

Even tiny bits of space junk can be dangerous. This is because all space debris circles the Earth at very high speeds. Pieces in lower orbits travel at around 35,400 kilometres (22,000 miles) per hour.

Now there is a greater chance of communication satellites being destroyed or badly damaged by collisions with space debris. If these collisions happen then even more space junk will be created. This will then increase the risk of other satellites being damaged.

Most bits of space junk gradually move closer and closer towards the Earth. At a certain height they will fall into the Earth's atmosphere. When this happens, apart from the biggest pieces, the debris burns up before it hits the ground. Yet the time it takes to do this depends on the height of their orbit. The farthest-away pieces could take over 20 years to fall.

The International Space Station (ISS) orbits the Earth at a height of roughly 400 kilometres (248 miles). It too is now threatened by space junk. Last June some debris only just missed the ISS. For safety reasons the astronauts on board at the time were ordered to move to an escape capsule. This is designed to bring them back to the Earth if there is an emergency.

There have been several ideas about how to reduce the amount of space junk. For example, the Japan Aerospace Exploration Agency (JAXA) is planning to make a giant net made out of strong, thin pieces of metal. The net would be launched into space as part of a satellite. Once the satellite arrives at the correct height the net will extend out to a distance of several kilometres. It will then catch the larger pieces of space junk in its path. Eventually, the net containing all the junk it has caught will fall back towards the Earth and burn up.

Other ideas are huge umbrella-shaped devices. These will 'sweep up' the debris or push it into lower orbits so it burns up when falling through the Earth's atmosphere. ■

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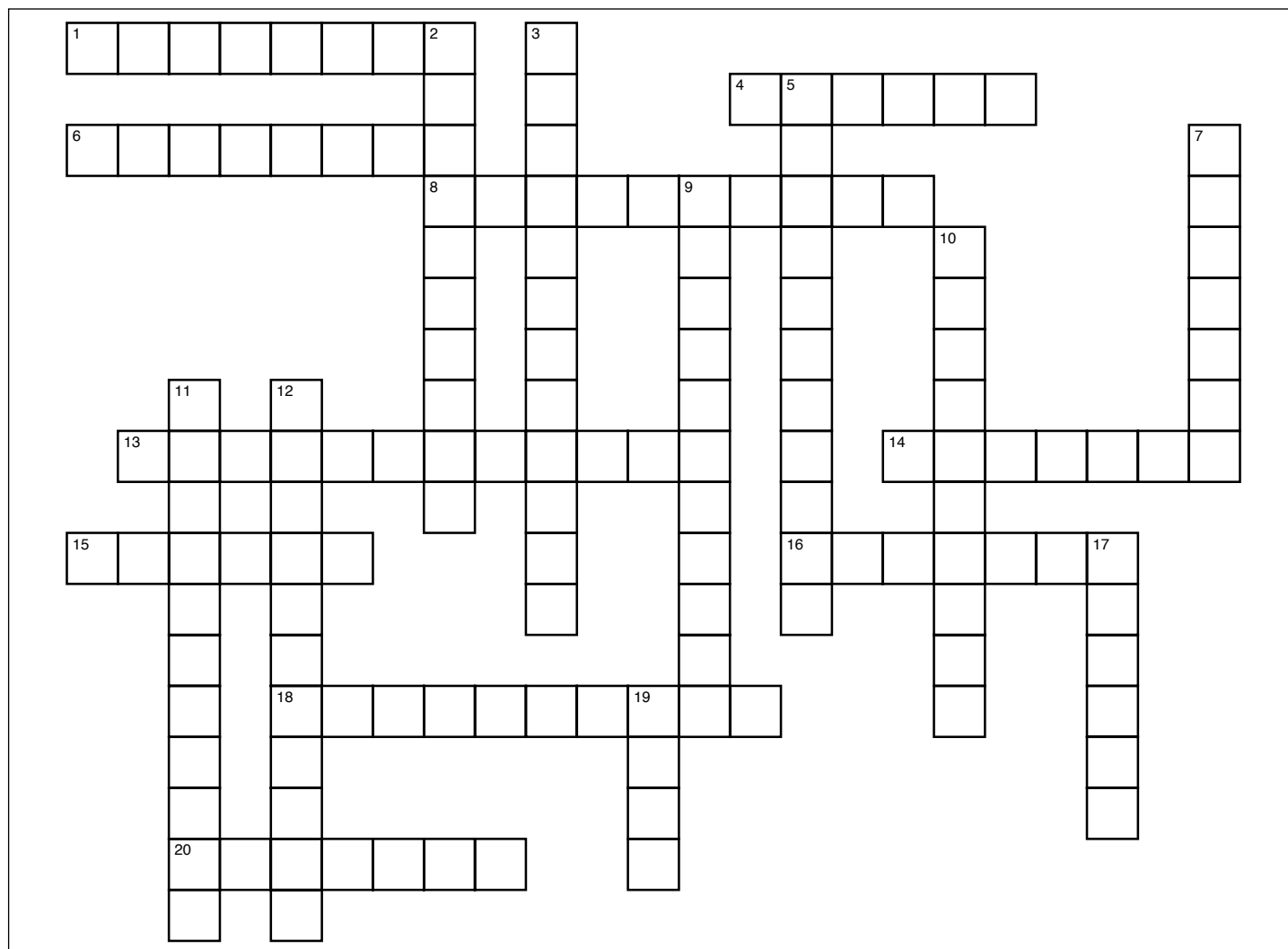
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ISSUE 196

GLOSSARY PUZZLE

INSTRUCTIONS: ① Complete the crossword. The answers are highlighted in orange in the news stories. There are 25 words highlighted and you need 20 of them to complete the crossword. ② Once you have solved the crossword go to the word search on the next page ➡



ACROSS

- 1 *Verb* Gained official protection for your invention to exclude other people from making or selling something the same
- 4 *Noun* Type of cement or plaster that is used for coating outside walls
- 6 *Verb* Closes tightly together
- 8 *Verb* Charging someone with doing something wrong, or challenging his or her honesty
- 13 *Noun* The act of preventing or changing a result or a course of events
- 14 *Verb* To ask someone for information or advice
- 15 *Noun* A poor densely populated area of a city in which many people of the same ethnic group share the same hardships
- 16 *Adjective* Describes something where the money has been provided
- 18 *Noun (Plural)* Violent impacts of two or more objects
- 20 *Noun* A renewed interest in something from the past

DOWN

- 2 *Verb* Given an official name, title or purpose
- 3 *Noun* Something, usually money, given to make up for loss, suffering, or injury
- 5 *Noun (Plural)* Rivers or streams flowing into larger rivers or lakes
- 7 *Noun* An entertainment or procession, usually with people wearing costumes to depict an historical scene or event
- 9 *Noun* Two or more things joining together or happening at the same time
- 10 *Noun* The study of the nature of knowledge, reality, and existence.
- 11 *Noun* The ceremony of appointing a new monarch
- 12 *Adjective* Describes something that causes much damage
- 17 *Verb* To come from, or where something can be traced to
- 19 *Noun* A promise, especially that you will tell the truth in a law court

REMNANT